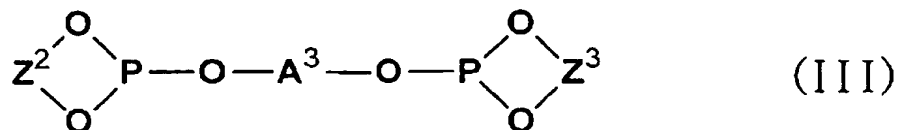
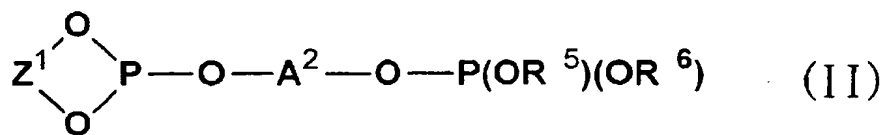
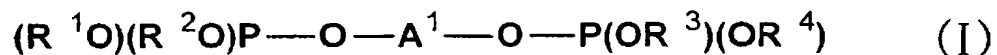


WHAT IS CLAIMED IS:

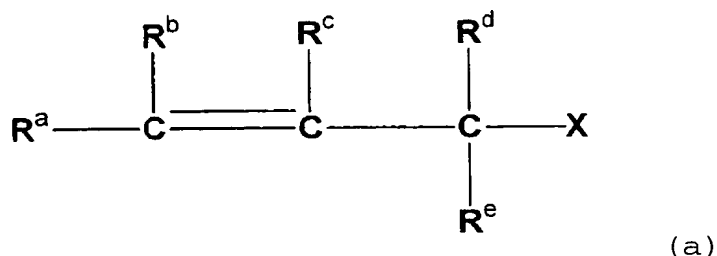
1. A method for producing an allyl compound having a compositional formula different from that of an allyl starting material compound, which comprises reacting the allyl starting material compound with a nucleophilic agent in the presence of a catalyst containing at least one transition metal compound containing a transition metal selected from the group consisting of transition metals belonging to Group 8 to Group 10 of the Periodic Table and at least one bidentate coordinated phosphite compound selected from the group consisting of compounds having structures of the following formulae (I) to (III):



wherein A^1 to A^3 are respectively independently a diarylene group having a branched alkyl group at the ortho-position, R^1 to R^6 are respectively independently an alkyl group which may have a substituent or an aryl group which may have a substituent (including a heterocyclic compound forming an aromatic 6π electron cloud on the upper and lower sides of the ring, hereinafter the same), and Z^1 to Z^3 are respectively

independently an alkylene group which may have a substituent, an arylene group which may have a substituent, an alkylene-arylene group which may have a substituent or a diarylene group which may have a substituent.

2. The method for producing an allyl compound according to Claim 1, wherein the allyl starting material compound has a structure of the following formula (a):



wherein R^a to R^e are respectively independently a hydrogen atom, a halogen atom, a hydroxyl group, an amino group, an alkyl group, an aryl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an acyl group or an acyloxy group; among these groups, the amino group, the alkyl group, the aryl group, the alkoxy group, the aryloxy group, the alkylthio group, the arylthio group, the acyl group or the acyloxy group may have a substituent; and when any of R^a to R^e has a carbon chain, the carbon chain may have at least one carbon-carbon double bond or triple bond;

X is a halogen atom, a hydroxyl group, a nitro group, an amino group, a sulfonyl group, a sulfonate group, an acyloxy group, a carbonate group, a carbamate group, a

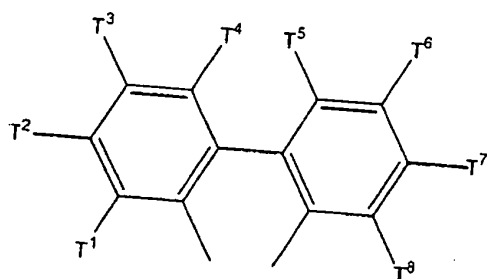
phosphate group, an alkoxy group or an aryloxy group;
among these groups, the amino group, the sulfonyl group,
the sulfonate group, the acyloxy group, the carbonate
group, the carbamate group, the phosphate group, the
5 alkoxy group and the aryloxy group may have a
substituent; when X has a carbon chain, the carbon chain
may have at least one carbon-carbon double bond or triple
bond; and

at least two optional groups among R^a to R^e and X may
10 bond to each other to form at least one cyclic structure.

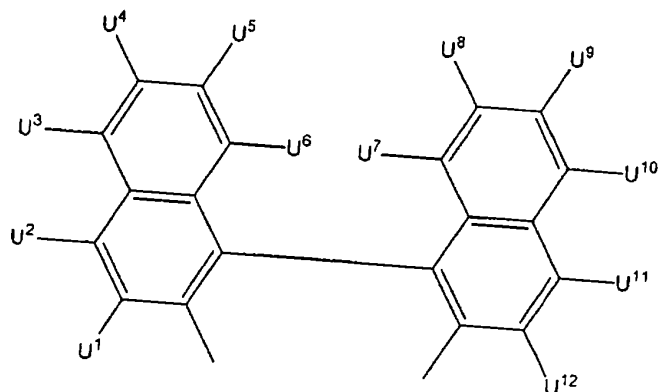
3. The method for producing an allyl compound according
to Claim 1, wherein the transition metal compound is at
least one compound selected from the group consisting of
a ruthenium compound, a rhodium compound, an iridium
15 compound, a nickel compound, a palladium compound and a
platinum compound.

4. The method for producing an allyl compound according
to Claim 1, wherein in the above formulae (I) to (III),
R¹ to R⁶ are respectively independently a C₆-C₂₀ aryl
20 group which may have a substituent, and Z¹ to Z³ are
respectively independently a diarylene group which may
have a substituent.

5. The method for producing an allyl compound according
to Claim 1, wherein in the above formulae (I) to (III),
25 A¹ to A³ are respectively independently a diarylene group
having a structure of the following formula (IV) or (V)
which may have a substituent:



(IV)



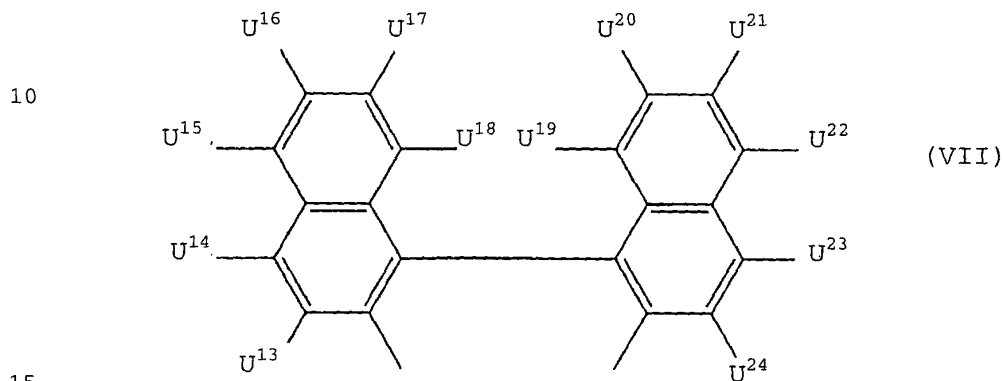
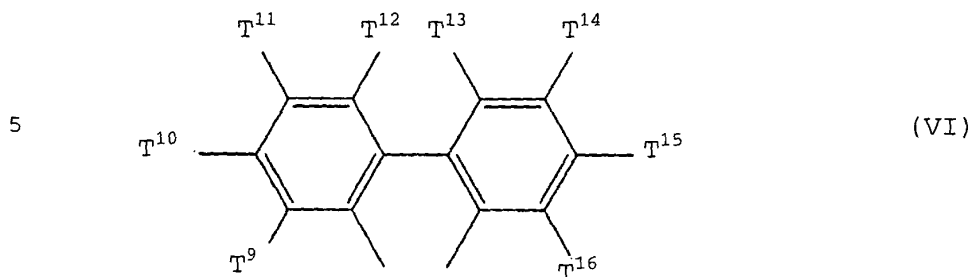
(V)

wherein T^1 , T^8 , U^1 and U^{12} are respectively independently a branched alkyl group, and T^2 to T^7 and U^2 to U^{11} are respectively independently a hydrogen atom, a halogen atom, an alkyl group, an aryl group, an alkoxy group, an aryloxy group, an acyl group, an acyloxy group, an amino group, an ester group, a carboxy group or a hydroxyl group.

6. The method for producing an allyl compound according to Claim 5, wherein T^2 to T^7 and U^2 to U^{11} are respectively independently a hydrogen atom, an alkyl group which may have a substituent, an alkoxy group which may have a substituent or an aryl group which may have a substituent.

7. The method for producing an allyl compound according to Claim 1, wherein Z^1 to Z^3 are respectively

independently a diarylene group of the following formula (VI) or (VII) which may have a substituent:



wherein T^9 to T^{16} and U^{13} to U^{24} are respectively independently a hydrogen atom, a halogen atom, an alkyl group, an aryl group, an alkoxy group, an aryloxy group, an acyl group, an acyloxy group, an amino group, an ester group, a carboxy group or a hydroxyl group.

8. The method for producing an allyl compound according to Claim 1, wherein a phosphonium compound is present in the reaction system.

9. The method for producing an allyl compound according to Claim 1, wherein an ammonium compound is present in the reaction system.

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